

WE CLAIM:

1. A method for synchronization, comprising:
  - (a) a synchronization initiator sending a sync key to a synchronization partner;
  - (b) determining a desired synchronization state to synchronize from based on the sent sync key; and
  - (c) the partner determining if the sent sync key is valid, and if the sync key is valid:
    - (i) attempting to synchronize with the initiator from the desired synchronization state to a current state; and
    - (ii) determining if the attempted synchronization was successful.
2. The method of Claim 1, wherein determining the desired synchronization state to synchronize from based on the sent sync key, further comprises:
  - (a) determining a value of the sent sync key; and
  - (b) setting the desired synchronization state based on the value of the sent sync key.
3. The method of Claim 2, wherein determining if the sent sync key is valid further comprises determining if a partner sync key exists related to the sent sync key; and if so:
  - (a) determining a previously stored value of the partner sync key; and
  - (b) comparing the value of the partner sync key to the value of the sent sync key.
4. The method of Claim 3, wherein setting the desired synchronization state based on the value of the sent sync key, further comprises:

- (a) determining if the desired synchronization state is an initial synchronization state based on the value of the sent sync key; and
- (b) determining if the desired synchronization state is another valid synchronization state based on the value of the sent sync key.

5. The method of Claim 3, wherein determining if the attempted synchronization was successful, further comprises:

- (a) the synchronization initiator determining if the synchronization was successful, and if so:
  - updating the sync key on the initiator; and
- (b) the synchronization partner determining if the synchronization was successful, and if so:
  - updating the partner sync key.

6. The method of Claim 5, wherein determining if the desired synchronization state is another valid synchronization state based on the value of the sent sync key, further comprises, determining if the value of the sent sync key corresponds to a stored synchronization checkpoint.

7. The method of Claim 6, wherein the sent sync key is an integer and the partner sync key is an integer.

8. A computer-readable medium having computer-executable instructions for synchronization, comprising:

- (a) a client sending a sync key to a server;
- (b) determining a desired synchronization state from the sent sync key; and
- (c) attempting to synchronize with the client to the desired synchronization state.

9. The computer-readable medium of Claim 8, further comprising:

(a) determining if the attempted synchronization was successful; and  
(b) updating the value of the sent sync key if the synchronization was successful.

10. The computer-readable medium of Claim 10, wherein determining the desired synchronization state from the sent sync key, further comprises:

(a) determining a value of the sent sync key;  
(b) locating a server sync key having a value;  
(c) comparing the value of the sent sync key to the value of the server sync key; and  
(d) setting the desired synchronization state based on the comparison.

11. The computer-readable medium of Claim 10, wherein setting the desired synchronization state based on comparison, further comprises:

(a) setting the desired synchronization state to an initial synchronization when the value of the sent sync key is zero; or  
(b) setting the desired synchronization state to a stored synchronization state of the server when the comparison determines that the value of the sent key relates to a stored synchronization state..

12. The computer-readable medium of Claim 11, wherein determining if the attempted synchronization was successful, further comprises:

(a) the client determining if the synchronization was successful, and  
if so:  
updating the value of the sent sync key; and  
(b) the server determining if the synchronization was successful, and  
if so:  
updating the value of the server sync key.

13. The computer-readable medium of Claim 12, wherein updating the value of the sent sync key and updating the value of the server sync key, further comprises incrementing the value of the sync key stored on the client and the server sync key.

14. A system for synchronizing data, comprising:

- (a) a processor and a computer-readable medium;
- (b) an operating environment stored on the computer-readable medium and executing on the processor;
- (c) a communication connection device operating under the control of the operating environment; and
- (d) a synchronization device operating under the control of the operating environment and operative to perform actions, including:
  - (i) receiving or sending a sync key to a synchronization partner;
  - (ii) determining a desired synchronization state from the sync key;
  - (iii) synchronizing with the client from the desired synchronization state to a current state; and
  - (iv) determining if the synchronization was successful.

15. The system of Claim 8, further comprising updating the sync key if the synchronization was successful.

16. The system of Claim 15, wherein determining the desired synchronization state from the sync key, further comprises:

- (a) determining a value of the sync key;
- (b) setting the desired synchronization state based on the value of the sync key.

17. The system of Claim 16, wherein determining if the attempted synchronization was successful, further comprises determining if the synchronized data was processed, and if so updating the value of the sent sync key.